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## PATENT COOPERATION TREATY REC'D 17 FEB 2006

## **PCT**

REC'D 17 FEB 2006
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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference Z-3048/04  | FOR FURTHER ACTION                                 | See Form PCT/IPEA/416   |  |  |
|--|--|---|--|--|
| International application No. PCT/EP2005/000206  | International filing date (day/monthly) 12.01.2005 | Priority date (day/month/year) 15.01.2004                             |  |  |
| International Patent Classification (IPC A61K35/78, A61P3/04   | or national classification and IPC                 |   |  |  |
| Applicant BRINGWELL INTERNATIONA   |  |   |  |  |
| Authority under Article 35 an  | d transmitted to the applicant according           | blished by this International Preliminary Examining ag to Article 36. |  |  |
| 2. This REPORT consists of a total of 5 sheets, including this cover sheet.  |  |   |  |  |
| 3. This report is also accompan  | nied by ANNEXES, comprising:                       | t of chapte as follows:   |  |  |
| a.   sent to the applicant and to the International Bureau) a total of sheets, as follows.  sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the   |  |   |  |  |
| sheets which supersede earlier sheets, but which this Authority considers contain an amendment that good beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.  |  |   |  |  |
| b. (sent to the International Bureau only) a total of (Indicate type and number of electronic odinicate), sometimes odinicate), someti |  |   |  |  |
| 4. This report contains indicat  | ions relating to the following items:              |   |  |  |
| ☑ Box No. I Basis of   | he opinion   |   |  |  |
| C - N II Delaviba  | •  | we will be described applicability                                    |  |  |
| ☐ Box No. III Non-esta   | blishment of opinion with regard to no             | velty, inventive step and industrial applicability                    |  |  |
| ☐ Box No. IV Lack of t   | inity of invention                                 | atta marette inventive step or industrial                             |  |  |
| Box No. IV Lack of unity of invention  Box No. IV Lack of unity of invention  Box No. IV Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement   |  |   |  |  |
|  | documents cited                                    |   |  |  |
| Box No. VII Certain defects in the international app   |  | cation  |  |  |
| ☐ Box No. VIII Certain   | observations on the international applic           |   |  |  |
| Date of submission of the demand   | Date o   | of completion of this report  |  |  |
| 07.11.2005   | 15.02  | 2.2006  |  |  |
| Name and mailing address of the ir preliminary examining authority:  | (GIT) A (IO) (A)                                   | rized Officer   |  |  |
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### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/EP2005/000206

|  |   |  | •  |   |
|--|---|--|--|---|
|  | Box N   | o. I Basis of the rep  | ort  |   |
| 1.   | With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item. |  |  |   |
| ☐ This report is based on translations from the original I which is the language of a translation furnished for the international search (under Rules 12.3 and 23.1(b) |   |  | a translation furnished i                                | of the purposes of.   |
|  |   | ] publication of the inte<br>] international prelimina               | rnational application (unary examination (under          | Rules 55.2 and/or 55.3)   |
| 2. With regard to the elements* of the international have been furnished to the receiving Office in report as "originally filed" and are not annexed to                |   |  | aceiving Ollice III respoi                               | olication, this report is based on (replacement sheets which use to an invitation under Article 14 are referred to in this report): |
|  | Desci   | ription, Pages   | •  |   |
|  | 1-13  | •  | as originally filed                                      |   |
| Claims, Numbers  |   | •  |  |   |
| 1-16   |   |  | as originally filed                                      |   |
| Drawings, Sheets   |   |  |  |   |
|  |   | 10/10  | as originally filed                                      |   |
|  |   | a sequence listing and/  | or any related table(s) -                                | see Supplemental Box Relating to Sequence Listing   |
| 2  | 3. 🗆  | The amendments have  | resulted in the cancella                                 | tion of:  |
|  |   | ☐ the description, pag   |  |   |
|  |   | <ul><li>☐ the claims, Nos.</li><li>☐ the drawings, sheet</li></ul>   | :s/figs  |   |
|  |   | ☐ the sequence listing ☐ any table(s) related                        | g <i>(specify)</i> :<br>to sequence listing <i>(sp</i>   |   |
|  | 4. □<br>had<br>Sup  | not been made, since oplemental Box (Rule 70                         | they have been consider<br>0.2(c)).                      | of) the amendments annexed to this report and listed below red to go beyond the disclosure as filed, as indicated in the            |
|  |   | <ul><li>☐ the description, page</li><li>☐ the claims, Nos.</li></ul> | ges  |   |
|  |   | ☐ the drawings, shee   | ts/figs  |   |
|  |   | □ the sequence listin  | g <i>(specify)</i> :<br>d to sequence listing <i>(sp</i> | pecify):  |
|  | *   | Tf item 4 applie   | s, some or all of  | these sheets may be marked "superseded."  |

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

No:

Claims

Inventive step (IS)

. Yes: Claims

1-16

1-16

Claims No:

Industrial applicability (IA)

Yes: Claims

1-16

Claims No:

2. Citations and explanations (Rule 70.7):

see separate sheet

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (SEPARATE SHEET)

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Re Item V

b

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: Dullooo et al., 1999.Am.J.Clin.Nutr., 70: 1040-1045.

#### **Novelty**

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and shows that (see abstract and page 1041, left-hand column, 3rd paragraph to righthand column, 1st paragraph; page 1042, right-hand column, last paragraph to page 1044, right-hand column, last paragraph)the references in parentheses applying to this document) the administration of a green tea extract, AR25 in form of capsules (containing 50 mg caffeine and 90 mg epigallocatechin gallate), promotes a significant increase in fat oxidation as compared to subjects taking caffeine alone (50 mg caffeine) or placebo.

The subject-matter of claims 1 and 9 differ from this known D1 in that the formulation of the present application incorporates diterpene forskolin, caffeoylquinic acids and flavonoids to the caffein and cathechines.

The subject-matter of claims 1 and 9 is therefore new (Article 33(2) PCT).

#### Inventive step

The problem to be solved by the present invention may be regarded as the provision of a pharmaceutical composition to treat obesity and associated metabolic syndrome.

The solution to this problem proposed in claims 1 and 9 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (SEPARATE SHEET)

International application No.

PCT/EP2005/000206

The combination of different extracts obtained from green tea (catechins such as epigallocatechin galate (EGCG)), Coleus forskholii (diterpene forskolin), yerba mate (caffeine and caffeoylquinic acids (cGA)) and Betula alba (flavonoids) act in concert, i.e. synergistically strengthening the two main effects of the mixture, i.e. the thermogenic effect (increased metabolic rate) and the decrease of the absortion of fat (see examples 3-5).

Claims 2-8 and 10-16 are dependent on claims 1 and 9 and as such also meet the requirements of the PCT with respect to novelty and inventive step.